February 2005

Welcome to the twelfth edition of the **MassGIS GISette**, a bi-monthly newsletter emailed to our users and partner agencies to keep them informed of data updates, GIS events, and on-going technology developments. This newsletter will not replace more focused emails that many of you currently receive. A page on our website has been created for the GISette. There you will find back issues of the GISette and an online subscription form to receive the newsletter via E-mail.

While our primary intent in publishing the GISette is to disseminate information related to MassGIS initiatives and data development in particular, we also see the GISette as a means of communicating public agency GIS news. So we encourage readers to send in updates or announcements concerning public agencies that they would like included in the GISette. We particularly want to encourage submission of announcements concerning data development projects. Announcements should be sent to Paul Nutting at paul.nutting@state.ma.us.

Database News

Data Updates

- **Hydrography (1:25,000) Layer Updated** - 2/10/2005
  The attributes of the HYDRO25K_ARC layer were modified to set ARC_CODE = 9 (intermittent/indefinite shoreline) where ARC_CODE was 1 and MINOR_NUM = 203 (indefinite shoreline). The affected watersheds are Cape Cod, Chicopee, Concord, French, Millers, Quinebaug and Ten Mile.

- **Orthophoto Index Updated** - 2/9/2005
  Three tiles were added to cover Nomans Land (island south of Martha's Vineyard).

- New **Public Water Supply Service Territories Layer** - 2/9/2005
  This layer delineates areas potentially served by larger public water suppliers, as of January 2004. The data were developed by EarthTech, through the Water Assets Project funded by the Massachusetts Executive Office of Environmental Affairs. The project addressed 131 municipalities in Massachusetts.

- New **Homeland Security Planning Regions Layer** - 2/7/2005
  This layer represents the boundaries of the Massachusetts Homeland Security Planning Regions. These regions are used by the Massachusetts Emergency Management Agency (MEMA) for the development of Homeland Security data layers as part of the Homeland Security Infrastructure Program.

- New **DFW Districts Layer** - 2/7/2005
  This layer represents the district boundaries of the Massachusetts Division of Fisheries and Wildlife. These districts are used by DFW and its parent agency, the Department of Fish and Game, for administrative purposes.

- New **Libraries Layer** - 2/3/2005
  This dataset contains points which represent locations of all libraries currently registered with the Massachusetts Board of Library Commissioners (MBLC). The layer is current as of October, 2004.

- **State House and Senate District Layers Updated** - 2/3/2005
  The Massachusetts House Legislative Districts and Massachusetts Senate Legislative Districts layers have been updated with attribute edits to reflect the changes from the November, 2004 elections. In February, 2005, attributes for the 3rd Berkshire district were modified following the resignation of Rep. Peter Larkin.

- **Schools Layer Updated** - 1/13/2005
  The Schools layer, representing pre-kindergarten through secondary schools, has been updated, as of October 18, 2004. New points have been added, closed schools removed, and several attributes and locations updated.

Additionally, the schools now may be grouped into five TYPE categories - Charter, Collaborative, and Special Education, along with the Public and Private school classifications that existed in the previous version of the layer. In January, 2005, the point for the West Tisbury Elementary School was moved to its correct location.

- **New Data Model for Open Space** - 1/12/2005
  The MassGIS Protected and Recreational OpenSpace Datalayer has undergone major revisions. The underlying data schema has been changed and many polygons have been added/revised/deleted. See details on the Open Space Datalayer Description page.

- **Update to DEP 2002 Integrated List of Waters Layer** - 1/10/2005
  DEP GIS made updates to the WBS2002_ARC (geometry Edits to existing arc segments to correct lengths, STATUS attribute updated) and WBS2002_POLY (attribute updates only, to the STATUS field) layers.

- **New Marine Beaches Layer** - 1/10/2005
  This layer was developed by the Mass. Department of Public Health, Center for Environmental Health, Environmental Toxicology Program and represents the linear extents of each beach, and points marking beaches' boundaries and access, sampling, and other locations for public and semi-public beaches in Massachusetts' oceanfront communities.

- **New 2-D Building Footprints Layer** - 1/10/2005
  This dataset consists of 2-Dimensional footprints of the buildings for parts of 33 cities and towns in the metropolitan Boston area. This layer was obtained as part of a 2002 project to obtain data using Lidar (an acronym for LIght Detection And Ranging).

- **C21e Layer Updated** - 1/7/2005
  DEP GIS Group has updated the Tier Classified Chapter 21E Sites datalayer. 15 Tier Classified Sites were added and 236 sites that are no longer Tier Classified have been removed.

- **RPAs Layer Updated** - 12/27/2004
  The Regional Planning Agencies layer was updated to reflect the correct names

Online Mapping

Software Upgrades
- ArcIMS, the map production engine, has been upgraded to version 9 on the eternal server.
- Mapaccess server 1.2.4 was released on January 3rd. (this is a back end system that runs the webservices behind OLIVER and other viewers). This upgrade has sped up some aspects of web services.

Addressing in OLIVER

OLIVER no longer requires a zip code for address matching (geocoding).

To zoom to an address you can enter either:

street number, street name, zip such as: 251 Causeway St., 02114

OR

street number, street name, city such as 251 Causeway St., Boston

Online Mapping Statistics for 2004 and for the first 6 weeks of 2005

2004 Statistics for Web Mapping Services and ArcIMS image production

COUNTS:
Total Number of ArcIMS Images 2004 (366 days): 3,856,414
Average Images Per Day: 10,537

Average Images Per Hour: 439
Average Images Per Minute: 7

QUANTITY: All the images, HTML, XML, and .zip data downloaded from the maps machine:
Total for the year 813 GB
Average per month: 67.75 GB
Average per day: 2.22 GB

Summary: We had a great year for up time and ended the year with a trend of higher numbers.

2005 To-Date Statistics (45 days) for Web Mapping Services and ArcIMS image production

COUNTS:
Average Images Per Day: 13,980. Projected # of maps per year for 2005: 5.1 million or more!
Average Images Per Hour: 582
Average Images Per Minute: 9.7

QUANTITY: All the images, HTML, XML, and .zip data downloaded from the maps machine:
Average per day: 3.11 GB

The tabulation of these data is rather complex and is presented here for temporal analysis. Please contact Aleda Freeman for further explanation.

Open Space Corner

Greetings Open Space Users!

It is 2005 and things are looking good. The Red Sox are reigning World Champions, the Patriots are reigning World Champions, the Bruins are still undefeated this season and the new OpenSpace Data Model is up and running. Until the webpage overhaul is complete, I have a temporary page up online that tersely delineates the major changes to OpenSpace (http://www.mass.gov/mgis/osp.htm). The details are beyond the scope of this column, but I'll try to hit the high points.

OpenSpace is no longer a coverage but a full ESRI GeoDatabase (note that ESRI nomenclature will be used from this point onward). Within the GeoDatabase are feature classes for OpenSpace arcs, OpenSpace polygons and Chapter61 polygons as well as a rules-based topology to mimic the hard topology of coverages and preserve the meticulous editing done in OpenSpace for over 15 years. The fields for the feature classes have been completely revised and in some cases domained. The fee owner field has been scrubbed, with the exception of municipal property (which needs to be done in conjunction with the manager field).

Extensive editing is now ongoing. Dept. of Fish and Game sites are now current through FY2004 (other EOEA agencies are at various levels of completeness). I am actively revising all OpenSpace to match the new Legislated Town Boundary layer and have completed northeastern MA (Use the SOURCE_TYPE field in OpenSpace_Arcs to see where). As updates come in from the Commonwealth Capital application process, I have been updating various towns throughout the state. Conservation Restrictions filed through the Division of Conservation Services are also being updated comprehensively. As editing progresses, I will also be working to finish scrubbing the data. Please note that many of the new fields are not yet fully populated and, as such, are not currently useful for database wide analyses. Read the manual on the website for correct usage and meanings of OpenSpace fields and terms.

Shepherding OpenSpace into the new Data Model has been a large task for one person. Luckily, two students from UMass Boston, Dake Henderson and Tim Comrie, have volunteered to help me get the new edits into OpenSpace. To them and everyone who has sent in updates, thank you! OpenSpace is the better for it.

If you have seen something wrong or missing in OpenSpace, please notify me of the correct information (please include the unique OS_ID or TOWN_ID & POLY_ID).

Keep those updates coming and looking forward to Spring (Training)!

 - Scott Costello, MassGIS Open Space Coordinator, scott.costello@state.ma.us, 617-626-1076

Events, Awards, and Meetings

Events

NEGITA Spring Conference- Thursday, May 12, 2000-Sheraton Ferncroft Resort, Danvers MA
Mobile Computing: What's New
NEGITA is sponsoring a one-day conference on mobile computing. The day will include an overview of the technology, users case studies, and 10 mobile vendors will be in attendance to showcase their products and services. For registration information go to the New England Chapter site

MassGIS will be exhibiting at the 2005 Massachusetts Association of Conservation Commission's *(MACC) Annual Environmental Conference .* To be held on March 5, 2005 at the Hogan Campus Center, Holy Cross College in Worcester, Massachusetts

MassGIS Wins GITA Award
MassGIS has won the GITA *Innovator Award* for its web mapping services. The *Innovator Award* recognizes the unique and significant contributions of user organizations that have pushed the envelope of geospatial technology through innovative development of a technology, service, or application. Saul Farber will accept our award at their annual conference in Denver in early March.

Meetings

Massachusetts Geographic Information Council MGIC A late March meeting is still in the planning stages, but it will have a municipal focus and will be held at the Waltham City Hall. Please check our website soon for details.

The next meeting of the Statewide Geographic Information Advisory Committee will take place Tuesday March 22 from 12:30 – 2:00 at MEMA Headquarters in Framingham. For more details on this meeting, contact Neil MacGaffey at neil.macgaffey@state.ma.us.

Any comments or suggestions about the GISette are welcomed at paul.nutting@state.ma.us.

MassGIS-The Commonwealth's Office of Geographic and Environmental Information is located within the Executive Office of Environmental Affairs and is charged with the collection, enhancement, storage and dissemination of the Commonwealth's geographic data.

Massachusetts Geographic Information System (MassGIS)
251 Causeway St., Suite 500
Boston, MA 02114

Phone: (617) 626-1000 Fax: (617) 626-1249

Christian Jacqz, Director
Ellen Roy Herzfelder, Secretary
Kerry Healey, Lt. Governor
Mitt Romney, Governor

MASS GIS
Massachusetts Geographic Information System
Massachusetts Executive Office of Environmental Affairs - 2004

EXECUTIVE OFFICE of
ENVIRONMENTAL AFFAIRS